

REMARKS / ARGUMENTS

Claims 1-5, 7-12 and 14-26 are now in the case.

The claims have now been amended to more particularly point out and distinctly claim applicant's invention.

Support for the amendments to the claims occurs at, e.g., paragraphs [0039] - [0042], and [0048] - [0121], as originally filed.

THE REJECTION

The Examiner rejected claims 6 and 13 under 35 U.S.C. 102(a), (b) and (e) as being anticipated by Elledge (US 1,482,367). This rejection has been mooted by the cancellation of these claims.

The Examiner rejected claims 1-5, 7-12 and 14-26 as being unpatentable over the combined teachings of Newsom, Jr. (US 4,383,846), Woodhouse (US 2,237,826), Facere (US 2,739,886) and John Deere, *Fundamentals of Machine Operation*, Chap. 2, "Fertilizers and Lime," pp. 15-35, (1976).

TRAVERSAL OF THE REJECTION

THE LAW OF PRIMA FACIE CASE OF OBVIOUSNESS

The law regarding the making of a prima facie case of obviousness ("PFCO") is well settled. For instance, MPEP 706.02(j) Contents of a 35 U.S.C. 103 Rejection [R - 2] provides in pertinent part:

"35 U.S.C. 103 authorizes a rejection where to meet the claim, it is necessary to modify a single

reference or to combine it with one or more other references. After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action (1) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (2) the difference or differences in the claim over the applied reference(s), **(3) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (4) an explanation why **one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.** To establish a prima facie case of obviousness, three basic criteria **must be** met. **First**, there must be some **suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.** **Second**, there must be a **reasonable expectation of success.** **Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.** *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 2143 - 2143.03 for decisions pertinent to each of these criteria.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either **the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.**" *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). See MPEP 2144 - 2144.09 for examples of reasoning supporting obviousness rejections. Where a reference is relied on to support a rejection, whether or not in a minor capacity, that reference should be positively included in the statement of the rejection. See *In re Hoch*, ** 428 F.2d 1341, 166 USPQ 406, *n. 3 (CCPA1970). **It is important for an examiner to properly communicate the basis for a rejection so that the issues can be**

identified early and the applicant can be given fair opportunity to respond. Furthermore, if an initially rejected application issues as a patent, the rationale behind an earlier rejection may be important in interpreting the scope of the patent claims. Since issued patents are presumed valid (35 U.S.C. 282) and constitute a property right (35 U.S.C. 261), the written record must be clear as to the basis for the grant. Since patent examiners cannot normally be compelled to testify in legal proceedings regarding their mental processes (see MPEP 1701.01), ***it is important that the written record clearly explain the rationale for decisions made during prosecution of the application.*** See MPEP 2141 - 2144.09 generally for guidance on patentability determinations under 35 U.S.C. 103, including a discussion of the requirements of *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966). See MPEP 2145 for consideration of applicant's rebuttal arguments. See MPEP 706.02(I) for a discussion of ** 35 U.S.C. 103 (c)."

PFCO NOT MADE OUT AGAINST THE CLAIMS

Applicant respectfully submits that the Examiner has not made out a prima facie case of obvious against the claims as presently amended.

Applicant has presently limited the broad composition claims to the ***chemical reaction product*** of a first compound comprised of moderately soluble sufamate moieties and a second compound comprised of a ***substantially insoluble*** macronutrient and/or micronutrient moieties so as to provide ***water solution stable macronutrients and/or micronutrients products.*** (bold emphasis added). These positive limitations in the claims are simply not taught by any of the prior art references cited by the Examiner.

Specifically, the Newsome reference, for example, adds sulfamic moieties to liquid fertilizer compositions ***for the purpose of preventing chemical reactions*** that

form magnesium bearing precipitates (see, e.g., column 3, lines 9-35 and 47-54; column 4, lines 21-47).¹

Woodhouse teaches the addition of sulfamic acids and/or sulfamic acid salts merely for the purposes of *nitrifying liquid fertilizer solutions e.g., increasing the concentration of soluble nitrogen and/or ammonia moieties in such solutions* (see e.g., page 1, column 2, lines 10-21 and lines 30-34).

On the other hand, the instant invention as now particularly and distinctly claimed is limited to the product of a **chemical reaction** of moderately soluble sulfamate moieties with **substantially insoluble** macronutrient and/or micronutrient moieties to provide **water solution stable macronutrients and/or micronutrients products**. The new language positively limits the **chemical nature** of the claimed product species and thus is deemed to patentably limit the broad composition claim. It is respectfully submitted that neither Newsome, nor Woodhouse (and indeed, any of the other references applied against the claims) simply do not teach these novel and unobvious limitations. Thus, a prima facie case of obviousness cannot be made against the claims as presently amended.

The Examiner rejects pursuant to 35 U.S.C. 103, over the *combined teachings* of Woodhouse, Newsome, Facer and John Deere. The Examiner speaks broadly as to what he believes each of the individual references teach. Then, **failing to provide reasons why one of ordinary skill would be motivated to combine the reference**, he merely concludes that one of ordinary skill would be motivated to combine the references. Applicant believes that this is not in accord with the law cited herein.

¹ Since Newsome equates *reagents* with *sulfactants* (column 3, lines 47-49), it is evident that Newsome **does not** disclose a chemical reaction.

As noted above, MPEP 706.02(j) clearly states:

"[T]he teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)...[t]he references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985)...It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to respond... it is important that the written record clearly explain the rationale for decisions made during prosecution of the application..."

It is respectfully submitted that the Examiners failure to ***clearly explain the rationale*** for his instant combination of prior art references, is fatal to his purported prima facie case of obviousness. For this reason and the others cited above, applicant respectfully contends that a prima facie case of obviousness has not been made out against the claims also on this account.

PFCO MADE OUT BUT REBUTTED

Assuming arguendo that the Examiner has made out a prima facie case of obviousness against applicant's claims, it is respectfully submitted that it is rebutted for the following reasons.

"TEACHES AWAY" DOCTRINE

One well establish way to rebut a prima facie case of obviousness is through the

doctrine of **teaches away**. The doctrine is articulated in a well know and much relied upon line of cases:

"A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant. See United States v. Adams, 383 U.S. 39, 52, 148 U.S.P.Q. (BNA) 479, 484, 15 L. Ed. 2d 572, 86 S. Ct. 708 (1966) ("known disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness"); W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1550-51, 220 U.S.P.Q. (BNA) 303, 311 (Fed. Cir. 1983) (the totality of a reference's teachings must be considered), cert. denied, 469 U.S. 851 (1984); In re Spinnoble, 56 C.C.P.A. 823, 405 F.2d 578, 587, 160 U.S.P.Q. (BNA) 237, 244 (CCPA 1969) (references taken in combination teach away since they would produce a "seemingly inoperative device"); In re Caldwell, 50 C.C.P.A. 1464, 319 F.2d 254, 256, 138 U.S.P.Q. (BNA) 243, 245 (CCPA 1963) (reference teaches away if it leaves the impression that the product would not have the property sought by the applicant). In re Gurley, 27 F.3d 551 (Fed. Cir. 06/15/1994). See also: Baxter International Inc. v. McGaw Inc., 47 U.S.P.Q.2d 1225, 149 F.3d 1321 (Fed. Cir. 06/30/1998); Tec Air, Inc. v. Denso Manufacturing Michigan Inc., 192 F.3d 1353, 52 U.S.P.Q.2d 1294 (Fed. Cir. 09/30/1999) "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994)."

In his conclusion for combining references, the Examiner states: "[F]urther Newsome, Jr. teaches that the addition of applicant's sulfamic acid derivatives **result in a stabilized composition.**²" Stated otherwise, Newsome adds sulfamic acid derivatives **for the purpose of retarding or precluding [chemical] reaction** that results in the formation of insoluble particulate magnesium complexes. In contrast, applicant adds compounds comprising sulfamic moieties to the composition of the invention **for the purpose of providing a chemical reaction that renders a product comprising water solution stable macronutrients and/or micronutrients moieties.** Thus, by following the teachings of Newsome, one of ordinary skill in the art **would be led in a direction divergent from the path that was taken by the applicant**, pursuant to at least, *Gurley, supra*. It can therefore be said that Newsome *teaches away* from the instant invention. Thus, assuming, *arguendo*, that the Examiner has made out a *prima facie* case of obviousness, it is accordingly rebutted for the forgoing reasons.

For any or all of the forgoing reasons, it is respectfully submitted that the claims as presently amended should be ALLOWED.

Respectfully submitted,

Walter H. Runkis

² The Examiner's reliance on Newsome here, indicated that *Newsome is an essential and indispensable to his purported prima facie case of obviousness.*